

## ABSTRACT

A method for determining whether a zero rate or non-zero rate transmission has occurred, in a variable spreading factor CDMA system, which provides the solution to the problem of de-spreading received signals with incorrect spreading codes and reducing processing delays, is presented. The method utilizes information determined from the received signals, which include control and data channel information, to determine whether a zero rate or non-zero rate transmission has occurred, and generating the correct spreading factor based on that determination. The method is based in a spreading factor detector, which is subsequently able to be utilized in several types of multiple access interference cancellation receivers, which utilize interference cancellation techniques.